YOUR MOBILE VOICE JUST GOT STRONGER

MOTOTRBO™ XiR™ M8600 SERIES DIGITAL TWO-WAY MOBILE RADIOS

From the delivery driver crisscrossing the city to the sanitation crew clearing streets, MOTOTRBO™ can transform your enterprise and make employee interactions smarter and safer. Our best-in-class audio and exceptional data capabilities empower people like never before.

Versatile and powerful, MOTOTRBO™ combines the best of two-way radio functionality with the latest digital technology. XiR™ M8600 Series radios integrate voice and data seamlessly, offer enhanced features that are easy to use, and deliver operations-critical advantages like integrated Bluetooth® and Intelligent Audio.

The XiR™ M8600 Series can remaster your workplace and the way people collaborate to help you achieve even greater efficiency.

AUDIO BEYOND EXPECTATIONS

When it comes to exceptional audio clarity, the quality of digital can't be denied. With the XiR™ M8600 Series mobiles, you get digital quality plus unique features to help your employees hear and speak clearly, wherever they work.

With Intelligent Audio, the radio volume automatically adjusts to compensate for background noise so workers don't have to adjust their radio volume to avoid missing a call in loud situations or disturbing others when they move into quiet places. Increased background noise suppression filters out unwanted external clamor – from road traffic to the roar of engines.

Bluetooth® audio, embedded right in the radio, provides voice communication with exceptional clarity – giving your people the freedom to move without wires. Also, IMPRES™ audio accessories enhance noise suppression and improve voice intelligibility for smarter audio than they've ever experienced before.

INDUSTRY-LEADING DATA

XiR™ M8600 Series radios feature integrated GPS that enables location tracking of mobile work teams and text messaging to enable communication when voice isn't feasible and the large, full-color display operates in day or night mode, for easy viewing of contact lists, text messages and work order tickets even in bright sunlight. These radios also feature integrated Bluetooth® enabling the radio to wirelessly interface with Bluetooth-enabled devices such as barcode scanners and magnetic card readers to facilitate the collection of critical information in the field.

MOTOTRBO's Application Developer program offers customized data applications that allow you to adapt your radios to your business challenges. With the industry's largest developer program, data applications answer your objectives—from work order ticket management to telephony integration, and more.

HIGH-POWERED PERFORMANCE

Because MOTOTRBO™ uses TDMA digital technology, you get integrated voice and data, twice the calling capacity and clearer voice communications. Also, the smart IMPRES™ technology in our high-powered accessories enables easier communications – everywhere your people travel.

RICH FUNCTIONALITY

XiR™ M8600 Series radios offer plenty of features your business seeks – including enhanced call signaling, basic and enhanced privacy-scrambling, option board expandability, the transmit interrupt suite to prioritize critical communication the moment you need it and compatibility with SCADA solutions for utility and public service monitoring and alarms. Programmable button features appear on the display for easy viewing and quick access. And when workers can't be distracted, customizable voice announcement provides audible confirmation of channel and zone changes as well as programmable button features, eliminating the need to view the display.

EXPANDED CAPACITY AND COVERAGE

Your work crews are on the go – picking up loads, dropping off cargo, repairing roads or restoring power after a storm. That's why you need the far-reaching performance of MOTOTRBO™.

IP Site Connect helps to dramatically improve customer service and productivity by using the Internet to extend coverage to create a wide area network, enhance single site coverage or link geographically dispersed locations. Capacity Plus single-site trunking expands capacity to over 1,000 users without adding new frequencies. Linked Capacity Plus multi-site digital trunking—enables you to accommodate the wide area communication your business requires. So whether you want expanded coverage at a single site or across multiple ones, MOTOTRBO™ can be scaled to your needs.

MIGRATE AT YOUR OWN PACE

Keeping operations running smoothly during a change in communication systems is vital to business. It's easy to migrate to digital with XiR™ M8600 Series radios because they operate in analog and digital mode while the dynamic mixed mode repeater functionality streamlines automatic switching between analog and digital calls. So you can begin using MOTOTRBO™ radios and repeaters on your existing analog system, and when your time and budget allow, move to digital at your own pace.

DAY-IN, DAY-OUT DURABILITY

XiR™ M8600 Series mobile radios are backed by a two-year Standard Warranty and a 1-year warranty for accessories.

XIR™ M8668/ M8660/ M8628/ M8620 SPECIFICATIONS

GENERAL SPECIFICATIONS

		XiR™ M8660/ M8668		XiR™ M8620/ M8628	
		VHF	**UHF Band 1**	**VHF**	**UHF Band 1**
Channel Capacity		Up to 1,000		32	
Typical RF Output	Low Power	1-25 W	1-25 W	1-25 W	1-25 W
	High Power	25-45 W	25-40 W	25-45 W	25-40 W
Dimensions (H x W x L)		2.1 x 6.9 x 8.1 in (53.3 x 175.3 x 205.7 mm)		2.1 x 6.9 x 8.1 in (53.3 x 175.3 x 205.7 mm)	
Weight		3.9 lbs (1.8 kg)		3.9 lbs (1.8 kg)	
Current Drain	Standby	0.81 A max	0.81 A max	0.81 A max	0.81 A max
	Rx @ Rated Audio	2 A max	2 A max	2 A max	2 A max
	Transmit	1-25 W: 11.0 A max 25-45 W: 14.5 A max	1-25 W: 11.0 A max 25-40 W: 14.5 A max	1-25 W: 11.0 A max 25-45 W: 14.5 A max	1-25 W: 11.0 A max 25-40 W: 14.5 A max
FCC Description		1-25 W: ABZ99FT3086	1-25 W: ABZ99FT4087	1-25 W: ABZ99FT3086	1-25 W: ABZ99FT4087
		25-45 W: ABZ99FT3087	25-40 W: ABZ99FT4088	25-45 W: ABZ99FT3087	25-40 W: ABZ99FT4088
IC Description		1-25 W: 109AB-99FT3086	1-25 W: 109AB-99FT4087	1-25 W: 109AB-99FT3086	1-25 W: 109AB-99FT4087
		25-45 W: 109AB-99FT3087	25-40 W: 109AB-99FT4088	25-45 W: 109AB-99FT3087	25-40 W: 109AB-99FT4088

RECEIVER

	VHF	**UHF Band 1**
Frequencies	136-174 MHz	403-470 MHz
Channel Spacing	12.5 kHz / 25 kHz	
Frequency Stability (-30°C, +60°C, +25°C Ref)	± 0.5 ppm	
Analog Sensitivity (12dB SINAD)	0.3uV 0.22uV (typical)	
Digital Sensitivity	5% BER : 0.3uV	
Intermodulation (TIA603D)	78 dB	75 dB
Adjacent Channel Selectivity (TIA603D)	50 dB @ 12.5 kHz 80 dB @ 25 kHz	50 dB @ 12.5 kHz 75 dB @ 25 kHz
Spurious Rejection (TIA603D)	80 dB	75 dB
Rated Audio	3 W (Internal) 7.5 W (External - 8 ohms) 13 W (External - 4 ohms)	
Audio Distortion @ Rated Audio	3% (typical)	
Hum and Noise	-40 dB @ 12.5 kHz/-45 dB @ 25 kHz	
Audio Response	TIA603D	
Conducted Spurious Emission (TIA603D)	-57dBm	

TRANSMITTER

	VHF	**UHF Band 1**
Frequencies	136-174 MHz	403-470 MHz
Channel Spacing	12.5 kHz / 25 kHz	
Frequency Stability (-30°C, +60°C, +25°C Ref)	± 0.5 ppm	
Low Power Output	1-25 W	1-25 W
High Power Output	25-45 W	25-40 W
Modulation Limiting	± 2.5 kHz @ 12.5 kHz/± 5.0 kHz @ 25 kHz	
FM Hum and Noise	-40 dB @ 12.5 kHz/-45 dB @ 25 kHz	
Conducted/Radiated Emission	-36 dBm < 1 GHz/-30 dBm > 1 GHz	
Adjacent Channel Power	60 dB @ 12.5 kHz/70 dB @ 25 kHz	
Audio Response	TIA603D	
Audio Distortion	3%	
FM Modulation	12.5 kHz: 11K0F3E / 25 kHz: 16K0F3E	
4FSK Digital Modulation	12.5 kHz Data: 7K60F1D & 7K60FXD	
	12.5 kHz Voice: 7K60F1E & 7K60FXE	
	Combination of 12.5 kHz Voice & Data: 7K60F1W	
Digital Vocoder Type	AMBE+2™	
Digital Protocol	ETSI TS 102 361-1, -2, -3	

MILITARY STANDARDS

	810C		810D		810E		810F		810G	
APPLICABLE MIL-STD	**METHOD**	**PROCEDURES**	**METHOD**	**PROCEDURES**	**METHOD**	**PROCEDURES**	**METHOD**	**PROCEDURES**	**METHOD**	**PROCEDURES**
Low Pressure	500.1	I	500.2	II	500.3	II	500.4	II	500.5	II
High Temperature	501.1	I, II	501.2	I/A1,II/A1	501.3	I/A1,II/A1	501.4	I/Hot, II/Hot	501.5	I/A1, II
Low Temperature	502.1	I	502.2	I/C3, II/C1	502.3	I/C3, II/C1	502.4	I/C3, II/C1	502.5	I/C3, II
Temperature Shock	503.1	-	503.2	I/A1/C3	503.3	I/A1/C3	503.4	I	503.5	I/C
Solar Radiation	505.1	II	505.2	I	505.3	I	505.4	I	505.5	I/A1
Rain	506.1	I, II	506.2	I, II	506.3	I, II	506.4	I, III	506.5	I, III
Humidity	507.1	II	507.2	II	507.3	II	507.4	-	507.5	II - Aggravated
Salt fog	509.1	-	509.2	-	509.3	-	509.4	-	509.5	-
Dust	510.1	I	510.2	I	510.3	I	510.4	I	510.5	I
Vibration	514.2	VIII/F, Curve-W	514.3	I/10, II/3	514.4	I/10, II/3	514.5	I/24	514.6	I/24
Shock	516.2	I, II	516.3	I, IV	516.4	I, IV	516.5	I, IV	516.6	I, IV, V, VI

GPS

Accuracy specs are for long-term tracking (95th percentile values > 5 satellites visible at a nominal -130 dBm signal strength)	
TTFF (Time To First Fix) Cold Start	< 1 minute
TTFF (Time To First Fix) Hot Start	< 10 seconds
Horizontal Accuracy	< 5 meters

BLUETOOTH®

Version	Supports Bluetooth® 2.1 + EDR Specification
Profiles Supported	Bluetooth® Headset Profile (HSP), Serial Port Profile (SPP), Motorola fast push-to-talk.
Devices Supported	Radio supports 1 Bluetooth® audio accessory and 1 Bluetooth® data device simultaneously
Range	Class 2, 10 meters

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-30° C / +60° C
Storage Temperature	-40° C / +85° C
Thermal Shock	Per MIL-STD
Humidity	Per MIL-STD
ESD	IEC 61000-4-2 Level 3
Dust and Water Intrusion	IP54, MIL-STD
Packaging test	MIL-STD 810C, D, E, F, and G

Specifications subject to change without notice. All specifications shown are typical.

Radio meets applicable regulatory requirementes.

For more information on how to strengthen your mobile voice, visit motorolasolutions.com/mototrbo

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MOTOTRBO DIGITAL REMASTERED.

MOTOROLA